Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Title V
AIR QUALITY PERMIT
Issued under 401 KAR 52:020

Permittee Name:	**U. S. Brick - Sipple Division**
Mailing Address:	**2014 Morris Creek Road, Stanton, Kentucky 40380**
Source Name:	**U. S. Brick - Sipple Division**
Mailing Address:	**Same as above**
Source Location:	**2014 Morris Creek Road, Stanton**
Permit Type:	**Federally-Enforceable**
Review Type:	**Title V**
Permit Number:	**V-04-017**
Log Number:	**50245**
KYEIS ID #:	**21-197-00001**
SIC Code:	**3251**
Regional Office:	**Frankfort Regional Office** **643 Teton Trail, Suite B** **Frankfort, Kentucky 40601-1758** **(502) 564-3358**
County:	**Powell**
Application Complete Date:	**March 21, 2003**
Issuance Date:	**February 27, 2004**
Expiration Date:	**February 27, 2009**

John S. Lyons, Director
Division for Air Quality

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in State Regulation 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

RAW MATERIAL HANDLING:

01 (01) Receiving Hopper
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Conveyor and Transfer Points (To Grinder)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Grinder (Steele Fawcett)
(Maximum Rated Capacity - 120 tons/hour)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(-) Conveyor and Transfer Points (To Screens)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Screen (MidWestern MEV 35-2)
(Maximum Rated Capacity - 120 tons/hour)
Constructed: 2001
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Screen (MidWestern MEV 35-2)
(Maximum Rated Capacity - 120 tons/hour)
Constructed: 2001
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Conveyor and Transfer Points (To Storage Bin)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Storage Bin
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RAW MATERIAL HANDLING: (CONTINUED)

01 (-) Conveyor and Transfer Points
(Two-way - Storage Bin to Emergency Ground Storage and back)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Enclosed Emergency Ground Storage
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Conveyor and Transfer Points
(From Storage Bin to Brick Mixing)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(-) Brick Mixing (Wet Process)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Toritt Model HPH-54)

(-) Conveyor and Transfer Points (Wet Process)
(From Brick Mixing to Texturing Line)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Toritt Model HPH-54)

(-) Conveyor and Transfer Points (Wet Process)
(From Brick Mixing to Kilns)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Toritt Model HPH-54)

(01) Sand Mixing
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model QBCS-270)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

RAW MATERIAL HANDLING: (CONTINUED)

01 (-) Conveyor and Transfer Points
(From Sand Mixer to Texturing Line in Containers)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(01) Texturing Line
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Toritt Model HPH-54)

(-) Conveyor and Transfer Points
(From Texturing Line to Kilns)
Constructed: 1971
Control: Entire emission unit enclosed in a building.
Baghouse (Toritt Model HPH-54)

APPLICABLE REGULATIONS:

State Regulation 401 KAR 59:010, New process operations, which applies to emission units constructed on or after July 2, 1975.

State Regulation 401 KAR 61:020, Existing process operations, which applies to emission units constructed before July 2, 1975.

1. Operating Limitations:

None

2. Emission Limitations:

a. Pursuant to State Regulation 401 KAR 59:010, Section 3(2) and Appendix A:

Combined emissions of particulate matter from the two screens (120 tons/hour, each) [emission points 01 (01)] shall not exceed 37.24 lbs/hr, each.

As determined by the following equation using the process weight rate (in units of tons/hr).

For process rates in excess of 60,000 lbs/hr: $E = 17.31\ P^{0.16}$

For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hour

2. Emission Limitations: (Continued)

b. Pursuant to State Regulation 401 KAR 61:020, Section 3(2)(a) and Appendix A:

1) Combined emissions of particulate matter from the receiving hopper (120 tons/hour) [emission point 01 (01)] shall not exceed 53.13 lbs/hr.

2) Combined emissions of particulate matter from the four conveyors (120 tons/hour, each) [emission points 01 (01) and (-)] shall not exceed 53.13 lbs/hr, each.

3) Combined emissions of particulate matter from the grinder (120 tons/hour) [emission point 01 (01)] shall not exceed 53.13 lbs/hr.

4) Combined emissions of particulate matter from the storage bin (120 tons/hour) [emission point 01 (01)] shall not exceed 53.13 lbs/hr.

5) Combined emissions of particulate matter from the enclosed emergency ground storage (120 tons/hour) [emission point 01 (01)] shall not exceed 53.13 lbs/hr.

6) Combined emissions of particulate matter from the four conveyors (14.44 tons/hour, each) [emission points 01 (01) and (-)] shall not exceed 24.53 lbs/hr, each.

7) Combined emissions of particulate matter from the brick mixing (14.44tons/hour) [emission point 01 (-)] shall not exceed 24.53 lbs/hr.

8) Combined emissions of particulate matter from the sand mixing (0.5 ton/hour) [emission point 01 (01)] shall not exceed 2.58 lbs/hr.

9) Combined emissions of particulate matter from the conveyor (0.5 ton/hour) [emission point 01 (-)] shall not exceed 2.58 lbs/hr.

10) Combined emissions of particulate matter from the texturing line (14.44 tons/hour) [emission point 01 (01)] shall not exceed 24.53 lbs/hr.

As determined by the following equations using the process weight rate (in units of tons/hr).

For process rates up to 60,000 lbs/hr: $E = 4.10\ P^{0.67}$

For process rates in excess of 60,000 lbs/hr: $E = 55.0\ P^{0.11} - 40$

For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hour

c. Pursuant to State Regulation 401 KAR 59:010, Section 3, any continuous emissions into the open air shall not equal or exceed twenty percent (20%) opacity.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

d. Pursuant to Regulation 401 KAR 61:020, Section 3(1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than forty (40) percent opacity.

Compliance Demonstration Method:

a. Compliance with hourly emission limit shall be determined as follows:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 * / (Hours of operation per month)] x (1 – control efficiency)

* If an Emission Factor other than that taken from AP-42 is used, documentation on how that Emission Factor was derived must be submitted to the Division's Central Office for approval.

b. Compliance with the opacity standard shall be as follows:

1) During periods of normal operation of the baghouse, no compliance demonstration is necessary.
2) If any of the emission units associated with the baghouse are in operation during any period of malfunction of the baghouse, the permittee shall determine compliance through maintenance of the records required by item d under **5. Specific Recordkeeping Requirements** (below).

3. Testing Requirements:

Pursuant to Regulations 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Method 5 for particulate matter shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

a. The permittee shall monitor and maintain records of the following parameters:
1) The monthly production rate of raw material processed
2) The monthly hours of operation (hours operated/month)

b. The permittee shall install, calibrate, maintain, and operate according to the manufacture's specifications a monitoring device to determine the static pressure drop across the baghouse. This monitoring device shall be read and the results recorded once a day during the operation of the unit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information for the baghouse:

a. The design and/or manufacture's specifications.
b. The operational procedures and preventative maintenance records.
c. Daily records of the pressure drop across the baghouse during all periods of operation.
d. During all periods of startup, shutdown, or malfunction of the baghouse, a daily (calender day) log of the following information shall be kept:
   1) Whether any air emissions were visible from the stack associated with the baghouse.
   2) Whether the visible emissions were normal for the stack.

e. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.

See **4. Specific Monitoring Requirements** above for additional recordkeeping requirements.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7, 8, 9, 10, and 11.
See Section G, General Condition (a) 4.

7. Specific Control Equipment Operating Conditions:

Control Equipment

Emission Point(s)	Control Equipment	Monitoring and Operating Parameters	Comments
01 Raw Material Handling	Flex Kleen Model 100-UC-160 KDIII	Pressure Drop: (check once per shift when in operation)	Exceedence of operating parameters shall be reported and/or repaired in accordance with **Section F.8.**
01 Sand Mixing	Flex Kleen Model QBCS-270	Pressure Drop: (check once per shift when in operation)	Exceedence of operating parameters shall be reported and/or repaired in accordance with **Section F.8.**
01 Manufacturing	Toritt Model HPH-54	Pressure Drop: (check once per shift when in operation)	Exceedence of operating parameters shall be reported and/or repaired in accordance with **Section F.8.**

7. Specific Control Equipment Operating Conditions: (Continued)

The Flex Kleen and Toritt baghouses shall be operated properly in accordance with the manufacture's specifications and/or standard operating procedures at all times the equipment listed above is in use. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but their associated baghouse is not.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

BRICK DRYER / KILN OPERATION:

02 (02) Lingl Tunnel Dryer (Old Kiln Dryer)
(Maximum Rated Capacity – 8.00 tons/hour)
Constructed: 1971, Modified: 1985
Emission Controls: None

(02) Natural Gas-Fired Lingl Tunnel Kiln (Old Kiln)
(Maximum Rated Capacity – 8.00 tons/hour)
Constructed: 1971, Modified: 1985
Emission Controls: None

03 (03) Lingl Tunnel Dryer (New Kiln Dryer)
(Maximum Rated Capacity - 8.84 tons/hour)
Constructed: 1980, Modified: 1984
Emission Controls: None

(03) Natural Gas-Fired Lingl Tunnel Kiln (New Kiln)
(Maximum Rated Capacity - 8.84 tons/hour)
Constructed: 1980, Modified: 1984
Emission Controls: None

APPLICABLE REGULATIONS:

State Regulation 401 KAR 59:010, New process operations, which applies to emission units constructed on or after July 2, 1975.

State Regulation 401 KAR 53:010, Ambient air quality standards

1. Operating Limitations:

Refer to **Section D.**

2. Emission Limitations:

a. Pursuant to State Regulation 401 KAR 59:010, Section 3(2) and Appendix A:

1) Combined emissions of particulate matter from the Lingl tunnel dryer (8.00 tons/hour) [emission point 02 (02)] shall not exceed 13.03 lbs/hr.

2) Combined emissions of particulate matter from the natural gas-fired Lingl tunnel kiln (8.00 tons/hour) [emission point 02 (02)] shall not exceed 13.03 lbs/hr.

3) Combined emissions of particulate matter from the Lingl tunnel dryer (8.84 tons/hour) [emission point 03 (03)] shall not exceed 13.86 lbs/hr.

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations: (Continued)

a. 4) Combined emissions of particulate matter from the natural gas-fired Lingl tunnel kiln (8.84 tons/hour) [emission point 03 (03)] shall not exceed 13.86 lbs/hr.

As determined by the following equation using the process weight rate (in units of tons/hr).

For process rates up to 60,000 lbs/hr: $E = 3.59\ P^{0.62}$

For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hr

b. Pursuant to Regulation 401 KAR 59:010, Section 3, no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity.

c. Pursuant to Regulation 401 KAR 53:010, Ambient air quality secondary standards, emission concentrations of gaseous fluoride (HF) modeled beyond the property boundary shall not exceed the following averages more than once per year:

1) Maximum One-Week Average: 2.86 ug/m^3
2) Maximum Twenty-Four-Hour Average: 3.68 ug/m^3

See **Section D - Source Emission Limitations and Testing Requirements** for source wide requirements.

Compliance Demonstration Method:

a. Compliance with hourly emission limit shall be determined as follows:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 * / (Hours of operation per month)] x (1 – control efficiency)

* If an Emission Factor other than that taken from AP-42 is used, documentation on how that Emission Factor was derived must be submitted to the Division's Central Office for approval.

b. In determining compliance with the opacity standard as listed above, the owner or operator shall use Reference Method 9.

3. Testing Requirements:

Pursuant to Regulations 401 KAR 50:055, General compliance requirements, 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using USEPA Method 5 or 17 (particulate matter) and Method 13B, 26, or 26A (hydrogen fluoride) shall be used as the stack test methods and shall be conducted as required by the Division.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following parameters for both kilns and their associated dryers:

1) The monthly amount of bricks processed by each kiln / dryer,
2) The monthly hours of operation (hours operated / month) of each kiln / dryer

5. Specific Recordkeeping Requirements:

Records of opacity monitoring data, hourly production rates based on monthly operating data, and support information shall be kept in accordance with the provisions of Condition 2 of Section F.

6. Specific Reporting Requirements:

See Section E, Conditions 5, 6, 7, 8, 9, 10, and 11.
See Section F, Condition (a) 4.

7. Specific Control Equipment Operating Conditions:

None

CRUSHING / SCREENING:

05 (06) Primary Crusher (McLanahan 18' x 42')
(Maximum Rated Capacity - 120 tons/hour)
(From Receiving Hopper)
Constructed: 1992
Control: Entire emission unit is enclosed in a building
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(07) Conveyor and Transfer Points (Basic 30" x 69')
Constructed: 1992
Control: Entire emission unit is enclosed in a building
Baghouse (Flex Kleen Model 100-UC-160KDIII)

(08) Screen (Simplicity 5' x 10')
(Maximum Rated Capacity - 120 tons/hour)
[To Grinder (Steele Fawcett)]
Constructed: 1992
Control: Entire emission unit is enclosed in a building
Baghouse (Flex Kleen Model 100-UC-160KDIII)

BRICK CRUSHING OPERATION – CRUSHING AND SCREENING:

07 (10) Conveyor and Transfer Points
Constructed: 1996
Control: Wet Suppression

(10) Primary Crusher - (McLanahan) (48” Double Roll)
(Maximum Rated Capacity - 75 tons/hour)
Constructed: 1996
Control: Wet Suppression

(10) Conveyor and Transfer Point
Constructed: 1996
Control: Wet Suppression

(10) Screen (Allis Chalmers) (Double – Deck)
(Maximum Rated Capacity - 75 tons/hour)
Constructed: 1996
Control: Wet Suppression

(10) Conveyor and Transfer Points
Constructed: 1996
Control: Wet Suppression

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:

State Regulation 401 KAR 60:670, New nonmetallic mineral processing plants, incorporating by reference 40 CFR 60, Subpart OOO, which applies to emission units constructed after August 31, 1983.

1. Operating Limitations:

None

2. Emission Limitations:

a. Particulate matter emissions from the baghouse that is associated with emission points 05 (06), (07), and (08); shall not exceed 0.05 g/dscm or exhibit greater than seven percent (7%) opacity as specified in Regulation 401 KAR 60:670 [40 CFR 60.672(a)].

b. Fugitive emissions from the primary crushers, emission points 05 (06) and 07 (10), shall not exhibit greater than fifteen percent (15%) opacity, each, as specified in State Regulation 401 KAR 60:670 [40 CFR 60.672(c)].

c. Fugitive emissions from the two screens, emission points 05 (08) and 07 (10); and the four conveyors and transfer points, emission points 05 (07) and 07 (10), shall not exhibit greater than ten percent (10%) opacity, each, as specified in State Regulation 401 KAR 60:670 [40 CFR 60.672(b)].

d. Pursuant to State Regulation 401 KAR 60:670 [40 CFR 60.672(e)], each emission point listed above, enclosed within a building, must comply with the above associated emissions limitations or the building enclosing the emission point(s) must comply with the following:

1) No owner or operator shall cause to be discharged into the atmosphere any visible fugitive emissions except emissions from a vent; and

2) No owner or operator shall cause to be discharged into the atmosphere from any vent, emissions which exceed the stack emissions limits listed in 2.a. above.

***Compliance Demonstration Method*:**

a. In determining compliance with the particulate matter standards listed in 2.a. above, the owner or operator shall use Method 5 or 17.

b. In determining compliance with the opacity standards as listed above, the owner or operator shall use Method 9 and the procedures as described in 40 CFR 60.11 and 40 CFR 60.675(c).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

***Compliance Demonstration Method*:**

c. In determining compliance with the emission limits listed in 2.d. above, the owner or operator shall use Method 22 to determine fugitive emissions.

3. Testing Requirements:

N/A

4. Specific Monitoring Requirements:

a. The permittee shall monitor and maintain records of the following parameters:
   1) The monthly production rate of raw material processed
   2) The monthly hours of operation (hours operated/month)

b. The permittee shall install, calibrate, maintain, and operate according to the manufacture's specifications a monitoring device to determine the static pressure drop across the baghouse associated with Emission Points 05 (06), (07), and (08). This monitoring device shall be read and the results recorded once a day during the operation of the unit.

c. Daily observations are required during daylight hours of all operations, control equipment and any visible emissions to determine whether conditions appear to be either normal or abnormal. If the operations, controls and/or emissions appear abnormal, the permittee must then comply with the requirements of Section F, Conditions 7 and 8., of this permit.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information for the baghouse associated with Emission Points 05 (06), (07), and (08):

a. The design and/or manufacture's specifications.
b. The operational procedures and preventative maintenance records.
c. Daily records of the pressure drop across the baghouse during all periods of operation.
d. During all periods of startup, shutdown, or malfunction of the baghouse, a daily (calender day) log of the following information shall be kept:
   1) Whether any air emissions were visible from the stack associated with the baghouse.
   2) Whether the visible emissions were normal for the stack.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements: (Continued)

e. If no visible emissions are observed, then no further monitoring is required. If visible emisions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the daily log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and date of certification.

See **4. Specific Monitoring Requirements** above for additional recordkeeping requirements.

6. Specific Reporting Requirements:

See Section E, Conditions 5, 6, 7, 8, 9, 10, and 11.
See Section F, Condition (a) 4.

7. Specific Control Equipment Operating Conditions:

Control Equipment

Emission Point(s)	Control Equipment	Monitoring and Operating Parameters	Comments
05 Crushing / Screening	Flex Kleen Model 100-UC-160 KDIII	Pressure Drop: (check once per shift when in operation)	Exceedence of operating parameters shall be reported and/or repaired in accordance with **Section F.8.**

The Flex Kleen baghouse shall be operated properly in accordance with the manufacture's specifications and/or standard operating procedures at all times the associated equipment listed above is in use. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the baghouse is not.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

BRICK CRUSHING OPERATION – RECEIVING AND LOADOUT:

06 (09) Brick Feed Hopper (Federal)
Constructed: 1996
Control: Wet Suppression

(11) Stacking Conveyor and Transfer Points
Constructed: 1996
Control: Wet Suppression

(-) Stockpile
Constructed: 1996
Control: Wet Suppression

(-) Truck Loadout
Constructed: 1996
Control: Wet Suppression

(11) Stacking Conveyor and Transfer Points
Constructed: 1996
Control: Wet Suppression

(-) Stockpile
Constructed: 1996
Control: Wet Suppression

(-) Truck Loadout
Constructed: 1996
Control: Wet Suppression

04 (01) Haul Road and Yard Area
Control: Wet Suppression

APPLICABLE REGULATIONS:

State Regulation 401 KAR 63:010, Fugitive emissions, which applies to each of the affected facilities listed above.

1. Operating Limitations:

N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

The materials processed at each affected facility listed above shall be controlled with wet suppression and/or enclosures so as to comply with the requirements specified in State Regulation 401 KAR 63:010, Fugitive emissions, Section 3, Standards for fugitive emissions.

Compliance Demonstration Method:

For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:

a. Pursuant to State Regulation 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation in accordance with the manufacture's specifications and/or standard operating procedures at any time an affected facility for which the equipment and measures are designed is operated, except as provided by State Regulation 401 KAR 50:055, Section 1.

b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and non-routine maintenance performed on each control device. Daily observations are required during daylight hours of all operations, control equipment and any visible emissions to determine whether conditions appear to be either normal or abnormal. If the operations, controls and/or emissions appear to be abnormal, the permittee must then comply with the requirements of **Section F – Monitoring, Record Keeping, and Reporting Requirements**, Condition 7 and 8, of this permit.

3. Testing Requirements:

N/A

4. Specific Monitoring Requirements:

Visual observations shall be made daily during plant operation to determine if fugitive dust from the raw material handling equipment is being generated in such an amount or manner as to cause a nuisance or to cross the property line. If such a condition develops, water or another wetting agent shall be applied to suppress fugitive dust emissions so as to comply with the applicable requirements of Regulation 401 KAR 63:010 as listed above.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements: (Continued)

In addition, visual observations shall be made daily during plant operation to determine if fugitive dust is becoming airborne from the haul road, yard area, or raw material storage areas as the result of vehicular traffic or windy conditions. If such a condition develops, water or a chemical wetting agent shall be applied to these areas as specified in Regulation 401 KAR 63:010 as listed above. Paved roads utilized by vehicles entering or exiting the plant shall be visually monitored on a daily basis to ensure that they are maintained in a clean condition.

5. Specific Recordkeeping Requirements:

N/A

6. Specific Reporting Requirements:

See Section E, Conditions 5, 6, 7, 8, 9, 10, and 11.
See Section F, Condition (a) 4.

7. Specific Control Equipment Operating Conditions:

N/A

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Sand Drying and Mixing:	61:020
2.	Rotary Kiln/Sand Dryer	
3.	Sand Mixer	
4.	2 Storage Bins	
5.	Universal shaker screen	
6.	Settling Machine	

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

Group Requirements:

These emission points are listed in Section B and are listed here due to common limitations and requirements for emissions of gaseous fluorides as hydrogen fluoride for all kilns.

02 (02) Natural Gas-fired Lingl Tunnel Kiln (Old Kiln)
03 (03) Natural Gas-fired Lingl Tunnel Kiln (New Kiln)

APPLICABLE REGULATIONS:

401 KAR 53:010, Ambient air quality standards, for hydrogen fluoride emissions.

1. Operating Limitations:

None

2. Emission Limitations:

Pursuant to State Regulation 401 KAR 53:010, Ambient air quality standards, emission concentrations of gaseous fluoride (HF) modeled beyond the property boundary shall not exceed the following averages more than once per year:

a. Maximum One-Week Average: 2.86 ug/m^3
b. Maximum Twenty-Four-Hour Average: 3.68 ug/m^3

Modeled off-site concentrations of gaseous fluorides as hydrogen fluorides due to all kilns shall not exceed the above limitations.

The permittee shall comply with the ambient air quality standard specified under 401 KAR 53:010, Ambient air quality standards, Appendix A, by continuing to vent the hydrogen fluoride from Kilns #02 and #03 to their respective existing stack.

3. Testing Requirements:

Pursuant to State Regulations 401 KAR 50:055, General Compliance requirements, 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using Reference Methods specified in State Regulation 401 KAR 50:015 shall be conducted on the Tunnel Kilns, emission points 02 (02) and 03 (03), using Kentucky Method 130 as required by the Division. Refer to **Section B.3**. under Emission Points 02 and 03.

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

3. Testing Requirements: (Continued)

Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by State Regulation 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol Form (DEP 6027) to the Division's Frankfort Central Office. Pursuant to State Regulation 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test. The permittee shall furnish the Division for Air Quality's Frankfort Central Office with a written report of the results of such performance tests.

4. Monitoring Requirements:

See Section D, Condition 1. above.

5. Recordkeeping Requirements:

See Section D, Condition 1. above.

6. Reporting Requirements:

Semiannually in accordance with the Monitoring, Recordkeeping, and Reporting Requirements Section F.5 and 6.

7. Specific Control Equipment Operating Requirements:

N/A

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate

any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V*

Permits incorporated by reference in State Regulation 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:

a. Date, place as defined in this permit, and time of sampling or measurements.
b. Analyses performance dates;
c. Company or entity that performed analyses;
d. Analytical techniques or methods used;
e. Analyses results; and
f. Operating conditions during time of sampling or measurement;

[Material incorporated by reference by 401 KAR 52:020, Section 1b (IV)1

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26]

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Frankfort Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26.]

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch

in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Frankfort Regional Office concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Division for Air Quality's Frankfort Regional Office within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6. [Section 1b V 3 and 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Division for Air Quality's Frankfort Regional Office and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period, and
   e. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality Frankfort Regional Office 643 Teton Trail, Suite B Frankfort, KY 40601-1758	U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth Street Atlanta, GA 30303-8960	Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date

the KYEIS emission survey is mailed to the permittee.

11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements:

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action

including but not limited to termination, revocation and reissuance, revision or denial of a permit. [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition. [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit. [Section 1a, 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority. [401 KAR 52:020, Section 7(1)]

SECTION G - GENERAL CONDITIONS (CONTINUED)

(a) General Compliance Requirements: (Continued)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit.

[Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3)(b)]

11. This permit does not convey property rights or exclusive privileges. [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in State Regulation 401 KAR 52:020, Section 26]

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Section 11(3)(d)]

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Section 11(3)(a)]

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(a) General Compliance Requirements: (Continued)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the

time of permit issuance. Compliance with the conditions of a permit shall be considered compliance with:

(a) Applicable requirements that are included and specifically identified in the permit and
(b) Non-applicable requirements expressly identified in this permit.

(b) Permit Expiration and Reapplication Requirements:

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:020, Section 12]

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets. [401 KAR 52:020, Section 8(2)]

(c) Permit Revisions:

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of State Regulation 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Emergency Provisions:

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;

SECTION G - GENERAL CONDITIONS (CONTINUED)

(d) Emergency Provisions: (Continued)

   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and 401 KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
e. This requirement does not relieve the source from other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (d) 1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

(e) Risk Management Provisions:

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA 22116-3346

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(f) Ozone depleting substances:

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(f) Ozone depleting substances: (Continued)

1. e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H – ALTERNATE OPERATING SCENARIOS – N/A

SECTION I – COMPLIANCE SCHEDULE – N/A